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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,724	02/12/2004	Richard Louis Arndt	AUS920031060US1	5919
35525	7590	09/21/2007		
IBM CORP (YA)			EXAMINER	
C/O YEE & ASSOCIATES PC			BLACK, LINH	
P.O. BOX 802333				
DALLAS, TX 75380			ART UNIT	PAPER NUMBER
			2163	
			MAIL DATE	DELIVERY MODE
			09/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/777,724	<b>Applicant(s)</b> ARNDT ET AL.	
	<b>Examiner</b> LINH BLACK	<b>Art Unit</b> 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This communication is in response to the documents dated 7/9/07. Claims 1-21 are pending in the application. Claims 1, 11, and 21 are independent claims.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong et al. (6467007), and further in view of Greene et al. (US 6922685).

As per claim 1, Armstrong et al. teach logical partitioning with various resources in the physical computer – col. 1, lines 43-67; apparatus or computer 10 represents any of a number of multi-user computer systems such as a network server – col. 4, lines 9-23; a primary partition shares some of the partition management functions for the computer, such as handling the powering on or powering off of the secondary partitions on computer 10 – col. 4, lines 55-67, thus, the primary partition acts a server partition, and the secondary partitions are equivalent to client partitions. Armstrong et al. teach the allocating/granting of resources – col. 5, lines 25-65; address translation

Art Unit: 2163

tables/hardware page tables 90-94 are provided in the partition manager to respectively handle the virtual to real address translation/mapping operations; logical partition and resources can be in any combination and arrangement – col. 5, lines 23-65. However, Armstrong et al. do not suggest communicating an identifier from the server partition to the client partition and mapping the logical resources into a logical address space of the client partition, where the mapping is performed by the client partition. Greene et al. teach method and system for managing partitioned data resources – the title; clients' partitioning – col. 66, last paragraph to col. 67, line 32; mapping of primary keys onto partition identifiers...to determine which partition contains the entity having a given PK – col. 68, line 10 to last paragraph; a central steward assigned for each entity type provides coordination and management of unique primary keys across all partitions – col. 63, lines 5-67. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Armstrong et al.'s teaching with Greene et al.'s teaching to efficiently manage resources.

As per claims 2-4, Armstrong et al. teach with logical partitioning, a single computer is permitted to operate essentially like multiple and independent "virtual" computers (logical partitions)...each logical partition executes a separate operating system, and from the perspective of users and of the software executing on the logical partition, operates as a fully independent computer...a hypervisor/partition manager...facilitates the allocation of resources to different logical partitions...each logical partition is fully independent of the other logical partitions – col. 1, lines 43-67; generating an identifier

Art Unit: 2163

for the logical resource – col. 8, lines 1-27; fig. 3, virtual page number. Since each logical partition operates as a fully independent computer, its each logical resource id shall be distinct within the partition for translating/mapping and identification purposes and which separates from the resource outside of the partition, thus, cannot be used to access the logical resource outside.

As per claim 5, Armstrong et al. teach resources may be allocated to any logical partition in the alternative; moreover, resources can be reallocated on a dynamic basis to service the needs of other logical partitions – col. 5, lines 55-65; thus, when resources need be relocated, a client/secondary partition has to return the control of resource back to the primary/server partition.

As per claims 6-8, Armstrong et al. teach rescinding, by the server partition, the logical resource; responsive to a determination, at the server partition, that the client partition is incapable of gracefully returning the logical resource, performing a forced rescind operation; preventing translation tables in the client partition from containing references to a physical address of the logical resource – col. 3, lines 13-56, especially lines 23-43 (requires that one or more entries in the address translation table be invalidated to ensure that a subsequent access to the virtual memory address space will attempt to access an unmapped virtual memory address).

As per claims 9-10, Amstrong et al. teach computer 10 need not be shut down if there is a hung processor in a partition; it is often desirable to initiate a reset operation to the hung partition supported by another processor. A reset request and a memory access interrupt are created...and sent to the problem partition...col. 3, lines 1-49; delay/waits at block 124 for the target processor to return to a known initial state by setting a timer and periodically checking the responsiveness of the target processor...col. 8, lines 35-59.

Claims 11-21 claim the same subject matter as of claims 1-10 are rejected based on the same ground of rejection.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection. Applicants argued the newly added limitation in the independent claims 1, 11, and 21. A new ground of rejection is hereby provided.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2163

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **LINH BLACK** whose telephone number is 571-272-4106. The examiner can normally be reached on Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2163

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
LINH BLACK  
Examiner  
Art Unit 2163

September 14, 2007

  
WILSON LEE  
PRIMARY EXAMINER